Gateway

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The ARRL Packet-Radio Newsletter

STA EXTENDED FOR UNATTENDED HF STATIONS HANDLING THIRD-PARTY TRAFFIC

The FCC has extended the Special Temporary Authority (STA) for automatically controlled HF packet-radio stations to pass third-party traffic messages until January 5, 1990. In the meantime, proposed rules for automatic HF packet radio operation are being drafted, based on the STA experience, for consideration by the ARRL Board of Directors and possible submission to the FCC as a petition for rule-making.

MONITOR MODE GARBAGE REDUCTION

If you have a TNC 2 or clone with at least 32-kbytes of memory installed and you like to monitor channel activity, but your terminal program does not adequately filter screen-modifying characters generated by TCP/IP and NET/ROM headers, you are in luck. Pac-Comm sells a Version 1.1.6 firmware chip, which includes the new PID command that toggles a function known as "PID Check." Normal AX.25 level 2 packets always have a PID of $F0, while NET/ROM transport layer, TCP/IP and other various level 3/4 packets have different PID bytes in their headers. By setting the PID Check function appropriately on your TNC, you can elect to see only normal AX.25 packets while in MON ON mode. For information on Version 1.1.6 firmware upgrades for TNC 2 clones, call Pac-Comm at 813-874-2980.

By the way, Kantronics KAM and KPC users have this function built into the recent releases of their TNC's firmware.

by Doug Everitt, N5DUB
from The Node

WORKS IN PROGRESS AT TAPR

There are three major programs under way at the Tucson Amateur Packet Radio Corporation (TAPR): the digital signal processing (DSP) program, the AMSAT-NA PACSAT program and a recently initiated high-speed radio/high-speed modem project.

The DSP project (a joint TAPR-AMSAT project) was started by Dr. Tom Clark, W3IWI, and Dr. Bob McGwier, N4HY. The DSP program moved along at a brisk pace until June 1988. At that time, Jan King, W3GEY, AMSAT vice president of engineering, announced that the PACSAT program was going to be a reality. At the same time, he laid out the development schedule and it had a real short fuse.

The original schedule required that the satellites be ready for launch by January 1, 1989, but since then, the schedule has been eased by Arianespace to May 1989. Nevertheless, Jan is pushing the developers hard for early readiness. The PACSAT program has impacted the DSP program because most of the key developers in both programs are the same people. There are others in the DSP program that are pressing on, but until the PACSAT program is finished, the DSP program has had to take a back seat in priorities.

The funding for the PACSAT electronics, batteries and solar panels has been provided to AMSAT by TAPR. This is a program ideally suited to TAPR objectives and most of the people involved in the work are key TAPR development folks. When operational, the initial space-based digital machines will provide a brand new testing ground for amateur digital communications.

The true potential of amateur digital communications will not be realized until there are radios that can respond to the high-speed responses that are needed. The solution to that problem is now on the drawing boards at TAPR developers. The guidelines that they are adhering to are KISS (keep it simple, stupid) and KIC (keep it cheap, meaning inexpensive). The device that is planned will be a combination 2-meter radio and modem running at 9600 bit/s. It will have no bells and whistles (KISS) and making it available to the amateur community as inexpensively as possible is a primary design goal (KIC). Don't look for a lot of niceties (readouts, etc) that you find on commercial amateur gear. This program is still in the design stage and prototyping will be underway early this winter. Hopefully, a couple of prototypes will be well enough along so that they can be demonstrated at the annual TAPR meeting on February 25-26.

by Andy Freeborn, NØCCZ, TAPR President
from Packet Status Register

WORLDWIDE PACKET RADIO STATISTICS

Doug Bennett, K4NGC, maintains statistics of packet-radio activity throughout the world and the following reflects the quantity and type of activity by country as of December 10, 1988. If anyone has any changes concerning these statistics, address them to K4NGC @ K4NGC.

COUNTRY	DIGI	PBBS	TOTAL	PERCENT
Argentina	0	1	1	0.03%
Australia	0	27	27	0.76%
Austria	0	4	4	0.11%
Belgium	0	5	5	0.14%
Canada	16	94	110	3.09%
Colombia	13	8	21	0.59%
Costa Rica	6	2	8	0.22%
Denmark	0	10	10	0.28%
Ecuador	0	1	1	0.03%
Finland	19	19	38	1.07%
France	9	10	19	0.53%
Germany, Fed Rep	57	22	79	2.22%
Greece	0	2	2	0.06%
Hong Kong	0	7	7	0.20%
Hungary	4	4	8	0.22%
Iceland	0	2	2	0.06%
India	0	1	1	0.03%
Indonesia	0	16	16	0.45%
Ireland	0	5	5	0.14%
Israel	0	4	4	0.11%
Italy	5	28	33	0.93%
Japan	6	158	164	4.60%
Luxembourg	1	0	1	0.03%
Malaysia	0	2	2	0.06%
Mexico	0	1	1	0.03%
New Zealand	0	1	1	0.03%
Norway	52	24	76	2.13%
Philippines	0	11	11	0.31%
South Africa	13	12	25	0.70%
Spain	0	7	7	0.20%
Sweden	0	20	20	0.56%
Switzerland	0	1	1	0.03%
United Kingdom	1	159	160	4.49%
United States	1397	1249	2646	74.22%
Venezuela	0	1	1	0.03%
Yugoslavia	23	6	29	0.81%
Total	1943	1622	3565	100.00%

NOVICE NOTCH: NORTH CAROLINA

Hans Miller, KB4BI, of Jacksonville, North Carolina, is running a Kantronics KPC-4 in the dual-port mode with one port operating on 223.40 MHz, the other, on 145.01 MHz. KB4BI-3 is the gateway's call sign and KB4BI-7 is the KA-Node's call sign. The gateway allows Novices operating on 220 MHz to access 2-meter PBBSs WB4UOU-1 and KB4NOZ-2.

from Hans Miller, KB4BI

(Gateway would like to continue publicizing Novice packet-radio activity, so if you know of any, please let me know, too. - WA1LOU)

DIGIPEATER AND PBBS CENSUS UNDERWAY

Within the next two months, Don Bennett, K4NGC, will send another large quantity of disks containing the World Wide Packet-Radio Digipeater and Packet Bulletin Board Listings. This listing has been maintained by Don for the past 2 1/2 years and contains over 3,500 call signs of known digipeaters and PBBSs worldwide. Don needs information to update this listing so that it is kept current. If you are a digipeater owner, PBBS SYSOP or packet-radio user, please help Don out. He needs the following information for all known digipeaters and PBBSs:

1. Call sign (same as used to connect)
2. Frequency
3. Aliases (for digipeaters only)
4. Type of packet use (digipeater/PBBS)
5. Type of activity (use one of the "Act Codes" below)
6. Map grid, if known (needed for HF PBBS antenna bearing)
7. City (nearest city)
8. State or Province
9. Country

Act Code:

A - DIGI - TNC 1 or clone ("dumb" digipeater)
B - DIGI - TNC 2 or clone ("dumb" digipeater)
C - DIGI - Layer 3/4 node (network node)
D - DIGI - VC switch (COSI/ROSE)
E - DIGI - TexNet
F - DIGI - TCP switch
G - DIGI - TCP gateway
H - DIGI - KA-Node (without gateway)
I - DIGI - KA-Node (with gateway)
J - DIGI - 9600-baud TNC
K - DIGI - 56-kbaud TNC
L - DIGI - Packet-radio repeater (input frequency only)
1 - PBBS - BBS, local user access and mail-forwarding
2 - PBBS - BBS, forwarding only (no users)
3 - PBBS - BBS, local user access and no mail-forwarding (not including personal mailboxes)
4 - MBOX - Personal mailboxes that a PBBS can forward to

Send Don any corrections, deletions, additions or verifications via K4NGC @ K4NGC. Call signs on the list will be purged if the last update exceeds two years, so verification is necessary.

If you wish to obtain a copy of the listings, send Don a disk mailer, 5 1/4-inch disk (IBM MSDOS format only) and return postage or download copies from Don's landline BBS at 703-680-5970. For WA7MBL PBBSs, Don can provide data files for the BIS-V20 program for an OS-Search on your PBBS for PBBS/digipeaters by location name.

WORMHOLES AT WORK

Dr Tom Clark, W3IWI, recently filled us in on the status of the different wormholes now in use.

The "original" wormhole from Maryland to San Francisco (see Gateway, Volume 3, Number 15) is kaput for the year (too bad) because the Ku-band satellite link ceased to be available.

Maryland to Minnesota, sometime called the "Gofer hole" or "Gofar hole," connects the DC area with Minneapolis and is still alive and well.

The rest of the wormholes are not real-time. They involve spooling messages and bulletins into files and then transmitting the files as mail on

nonamateur links, then converting back to mail on the other end. The following three are in use now:

Maryland to Utah, sometimes called the "NUTHOLE" (for Northern Utah), goes between W3IWI and WA7MXZ. Mail is sent by Internet TCP/IP links or DECNet links.

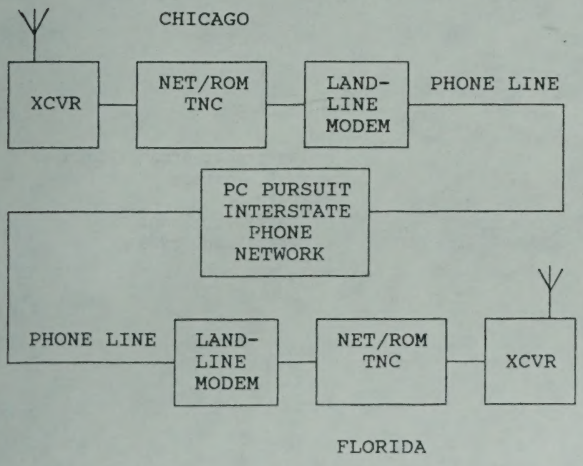
Maryland to Sweden, between W3IWI and SM/RGV in Stockholm, uses TCP/IP on Internet.

Maryland to Israel, between W3IWI and 4X6OJ, uses Bitnet links.

Note that the 4X-link is in addition to the 15-meter HF link between 4X1RU and N4QQ-1 (located at and run by KB4ZJ). We use the Bitnet path to move long mail items and bulletins off-line while the HF link handles the real-time short mail items.

INTERSTATE LINKING VIA PC PURSUIT

The Motorola Amateur Radio Club in Plantation, Florida, has been using PC Pursuit, a commercial data communications telephone network run by Telenet, to interconnect several packet-radio LANs around the country including California, Seattle, Houston and Chicago. Tom Kneisel, K4GFG, spear-headed the effort and approximately a year ago, he presented his idea to the Chicago Area Packet Radio Association (CAPRA) and began running tests on Monday and Tuesday nights.



For the Chicago link, he dials a PC Pursuit local access telephone number through a 1200-bit/s automatic-answering modem that is connected to a NET/ROM-equipped TNC 2. The link then looks like a normal NET/ROM link (refer to the accompanying diagram), only it goes to Florida! This created some confusion during the first tests in Chicago. Some people could not believe they were connected to Florida stations. (CAPRA now has the landline NET/ROM node connected directly to its 9600-bit/s link.)

Keyboard, not PBBS operation is encouraged on the PC Pursuit link. Some people enjoy seeing how far they can DX from the remote site. From Houston, Florida users have connected all the way to Canada and from California, they have connected back through the original California-to-Maryland "wormhole" to the East Coast.

Effective January 1, WB6KGB-1 from Florida City is taking over the linking operation for south Florida replacing the Miami node.

from Steve Goode, K9NG, and Tom Kneisel, K4GFG
via CompuServe's HamNet

ANNUAL TAPR MEETING ON TAP

The 1989 Annual Membership Meeting of the Tucson Amateur Packet Radio Corporation (TAPR) will be held in Tucson, Arizona, on February 25-26. It will be held at the The Inn At The Airport at 7060 South Tucson Blvd, which is the same location as last year located a short, but not walking distance from the airport terminal. Room reservations may be made by calling 1-800-772-3847 from out-of-state or 602-746-0271 from Arizona. Those wishing to be on the speaking agenda should advise the TAPR office as soon as possible. The Sunday session should be concluded around noon for those planning afternoon departures.

from Packet Status Register

STRAY BITS

Version 9.03 of WØRLI's PBBS software is now available from the usual sources as listed in Gateway, Volume 5, Number 7. By the way, the current version of WA7MBL's software is 5.12. It is available from Wes Morris, K7PYK, and other sources. Wes' address is 7422 E McKinley St, Scottsdale, AZ 85257.

AMSAT-NA President Doug Loughmiller, KO5I, has announced that the 1989 AMSAT-NA Space Symposium will be held in Des Moines, Iowa, on November 10-12, 1989. The sponsoring group for that symposium will be the Central Iowa Technical Society, Ralph Wallio, WØRPK, Chairman.

GATEWAY'S THE ONE

"A Whole Earth Catalog," titled SIGNAL: Communication Tools for The Information Age, which was recently published by Harmony Books, surveys the information frontier from basic tools like the word processor to more elaborate systems, such as global television, teleconferencing, public access radio broadcasts and computer art. Among the communication tools of the information frontier that are covered in this book is amateur packet radio. The book describes a number of sources for packet radio equipment and information including the ARRL's book Your Gateway to Packet Radio and this newsletter, which it describes with the following comment, "If a 'packeteer' could only get one magazine this is the one."

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail to:

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75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s.

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